

FIG. 1

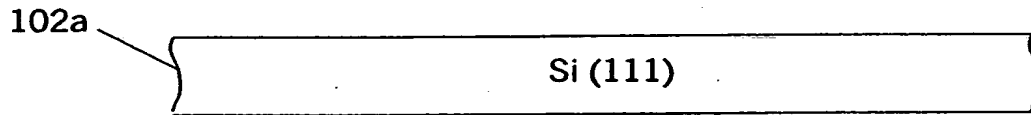


FIG. 2

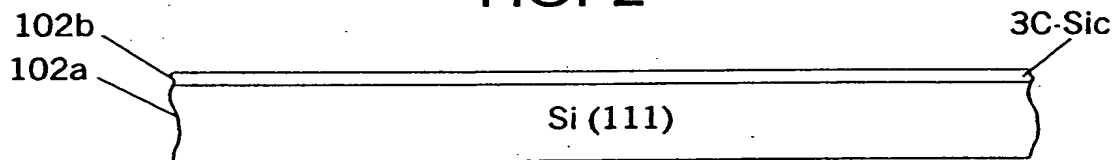


FIG. 3

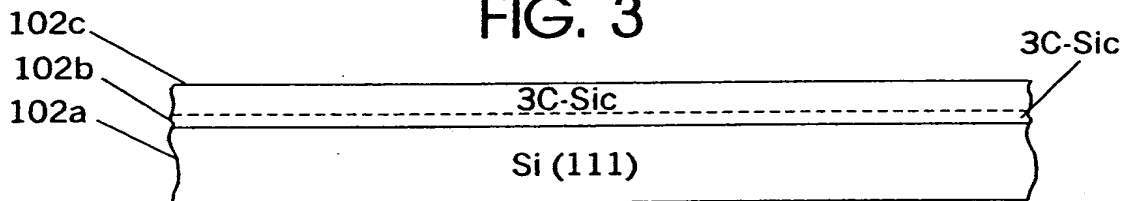


FIG. 4

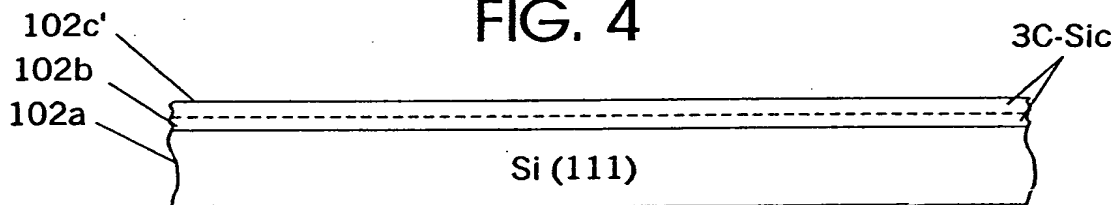


FIG. 5

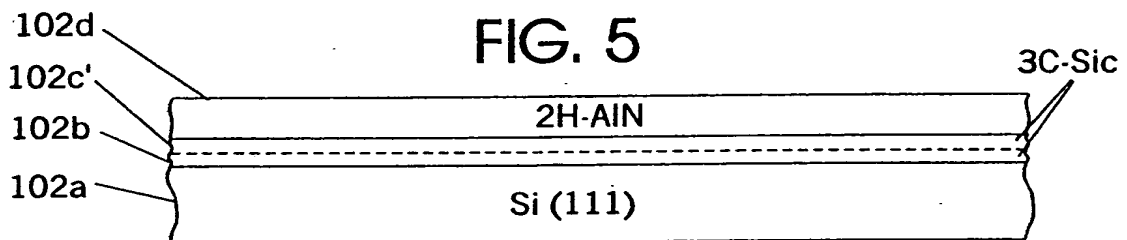


FIG. 6

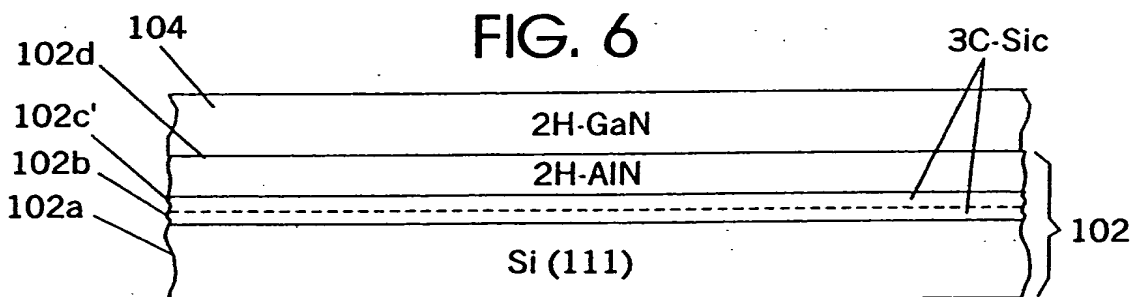


FIG. 7

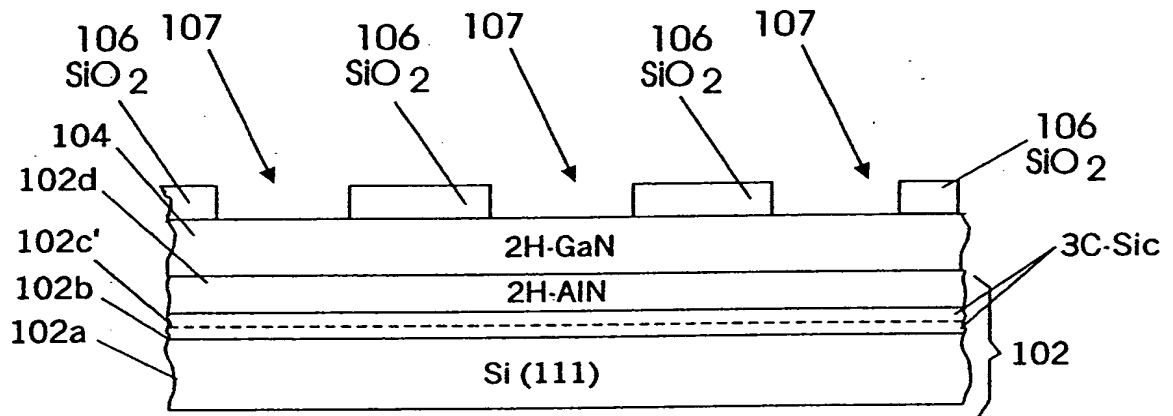
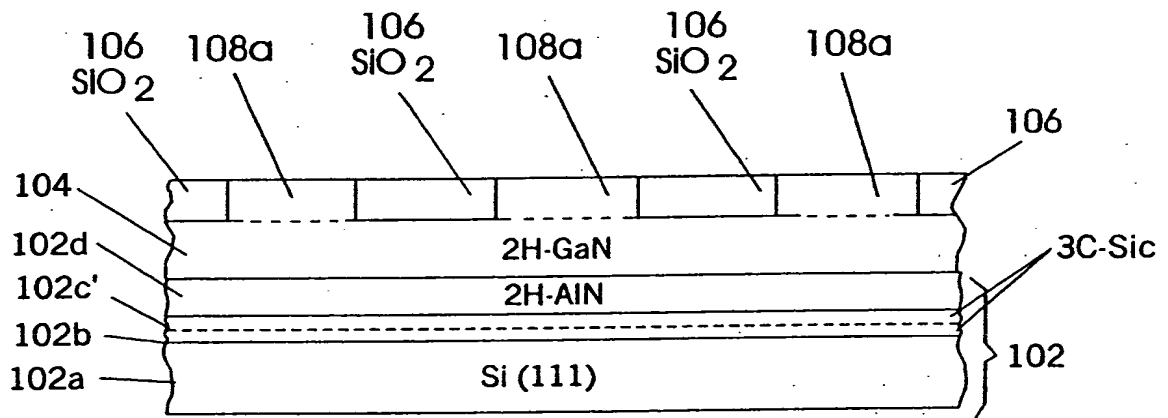


FIG. 8



A cross-sectional view of a semiconductor device structure. The structure consists of a substrate 102, which includes layers 102a, 102b, 102c', and 102d. A layer of 2H-AIN is grown on top of the substrate. A layer of 2H-GaN is grown on top of the 2H-AIN layer. A layer of SiO₂ (106) is grown on top of the 2H-GaN layer. The SiO₂ layer is patterned to form openings 108a and 108b. The openings 108a are filled with a material 108c. The openings 108b are filled with a material 108b. The material 108b is a conductive material, and the material 108c is an insulating material.

FIG. 11

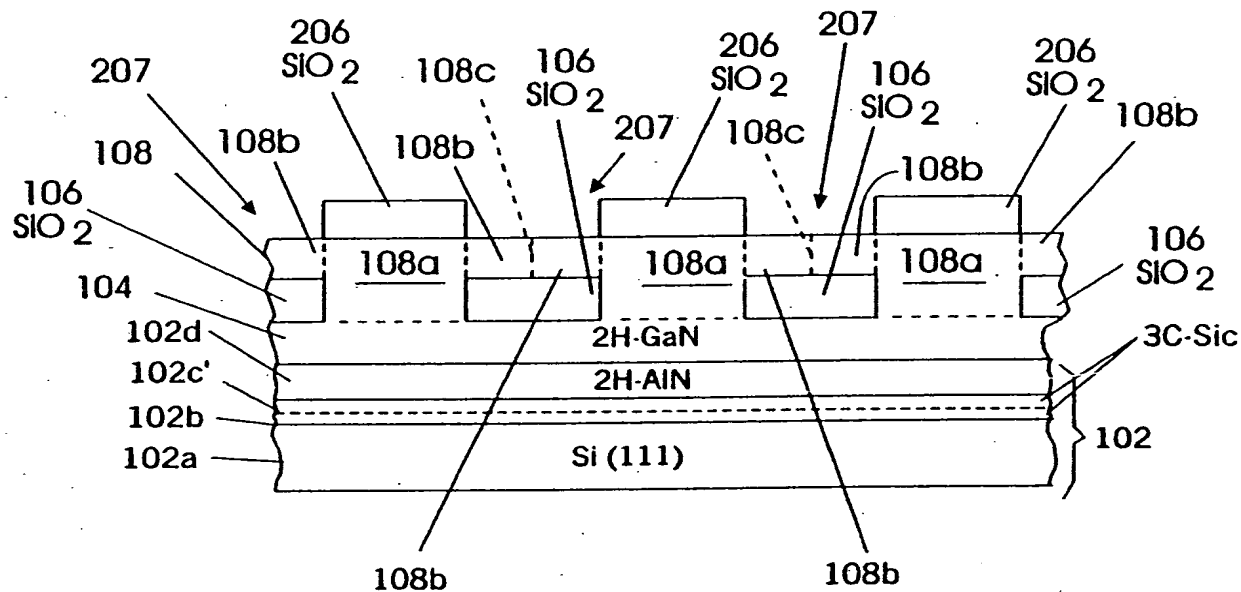


FIG. 12

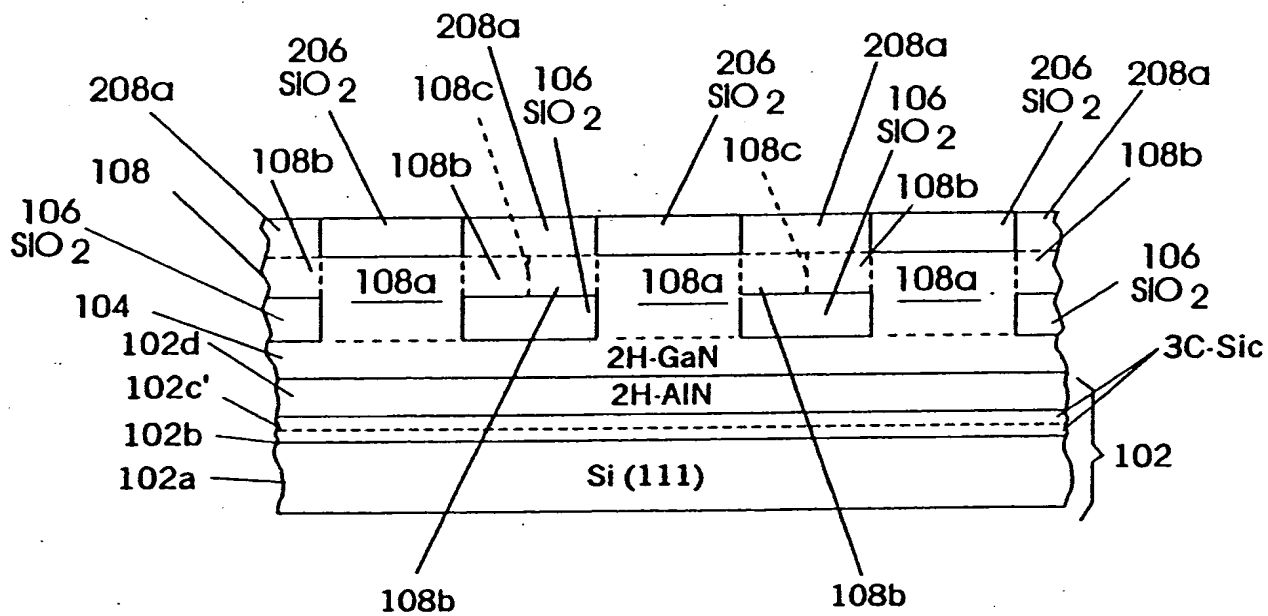


FIG. 13

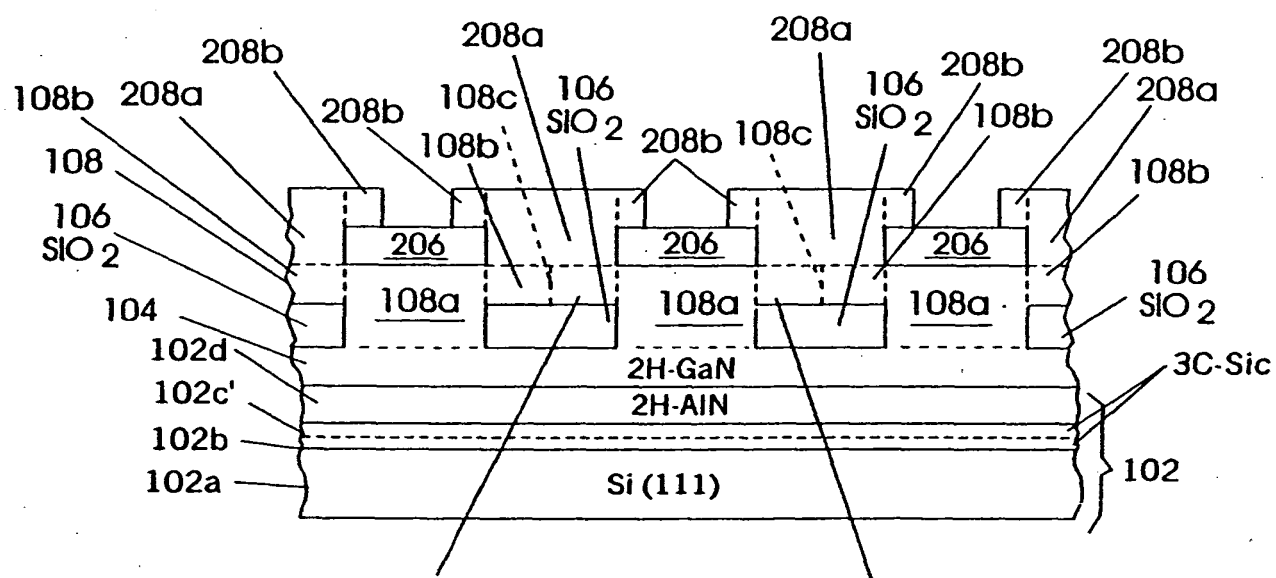


FIG. 14

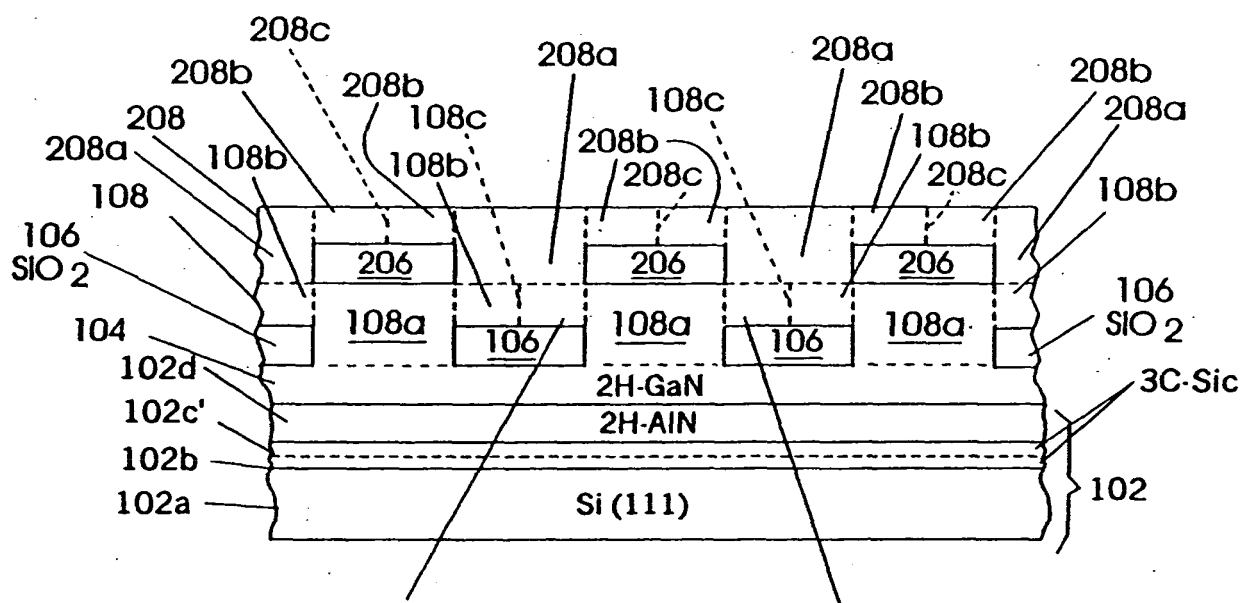


FIG. 15

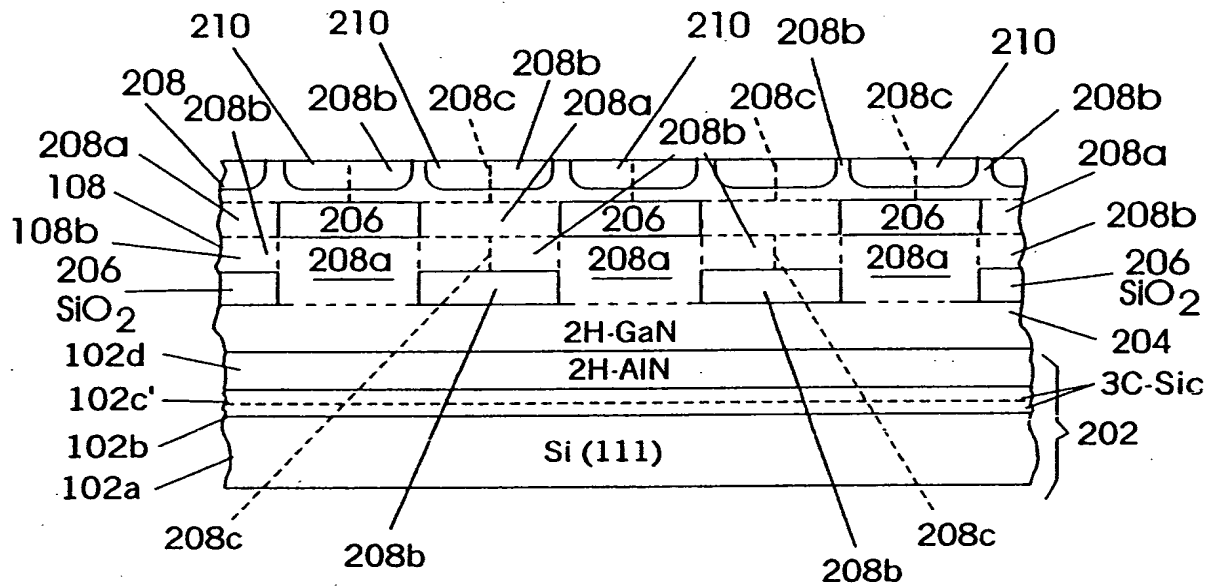


FIG. 16

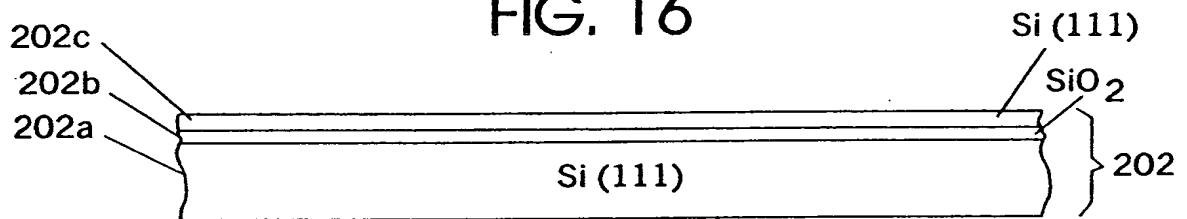


FIG. 17

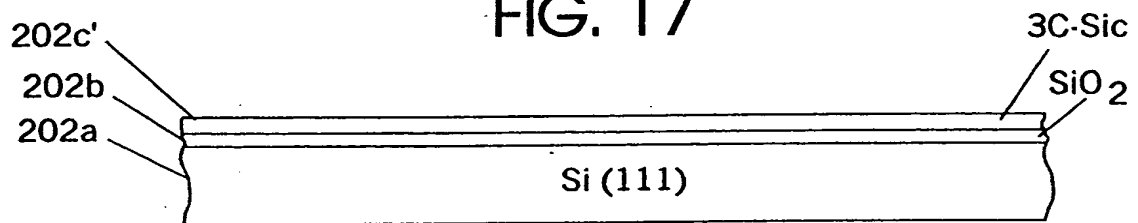


FIG. 18

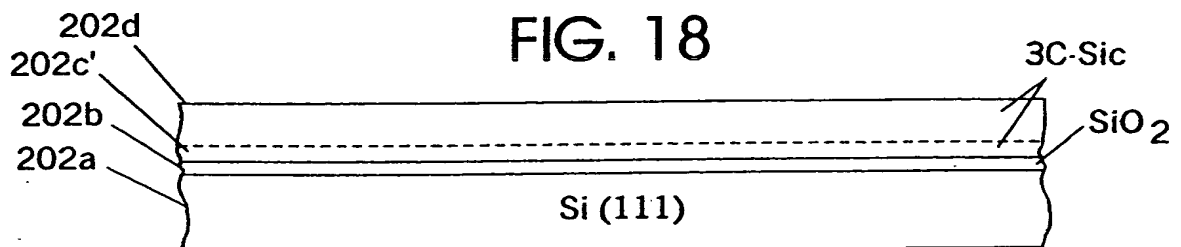


FIG. 19

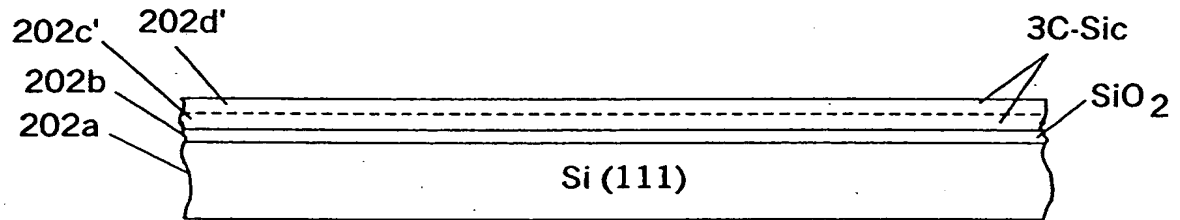


FIG. 20

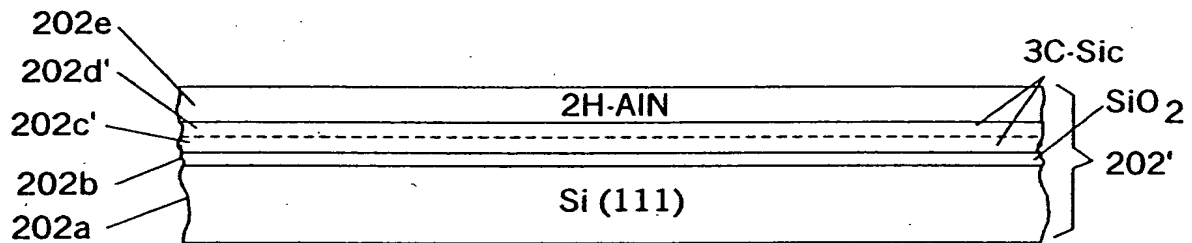


FIG. 21

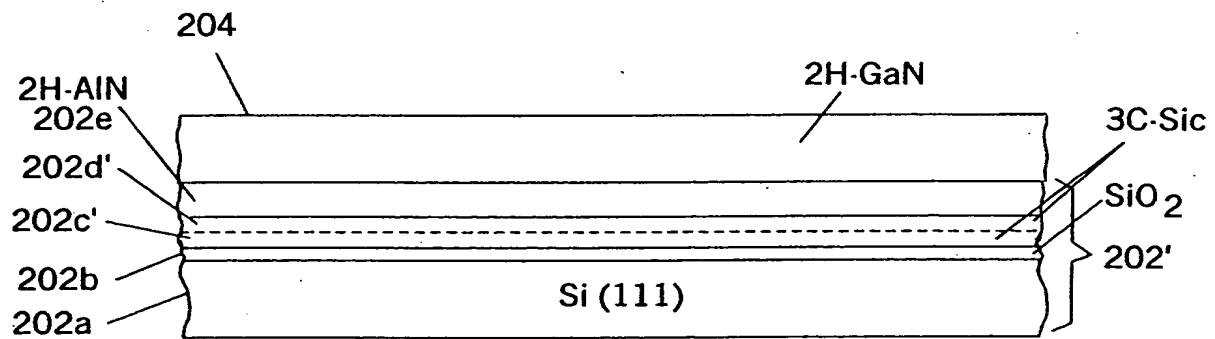


FIG. 22

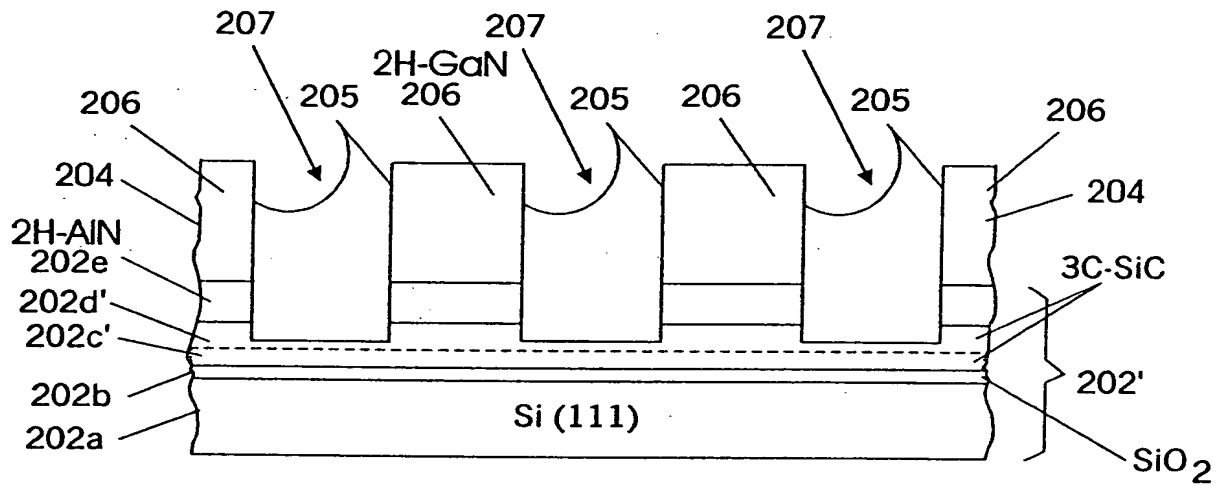


FIG. 23

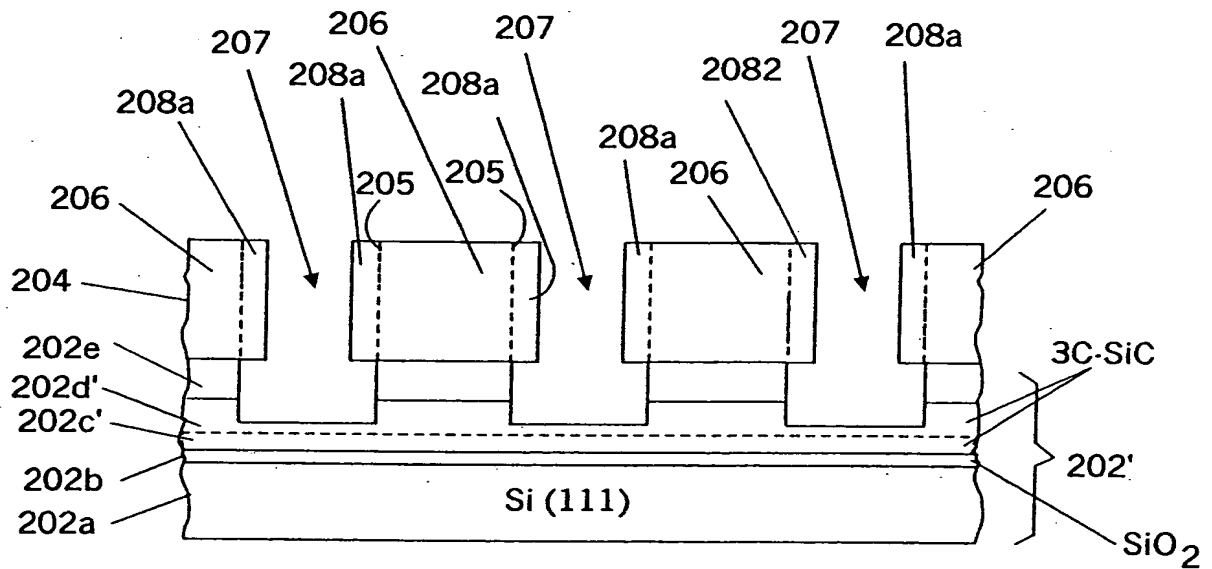


FIG. 24

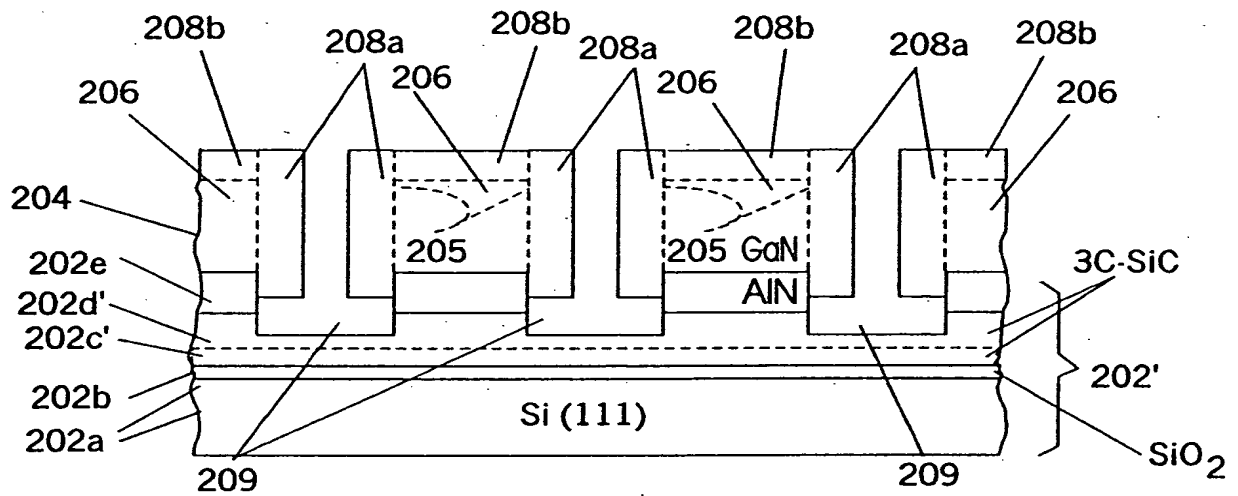


FIG. 25

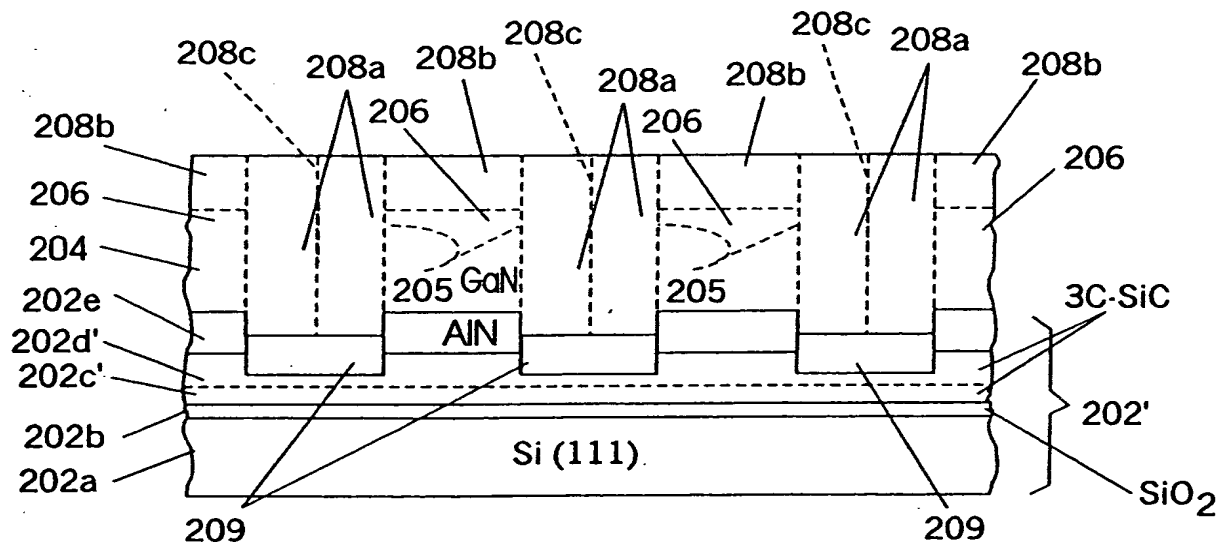


FIG. 26

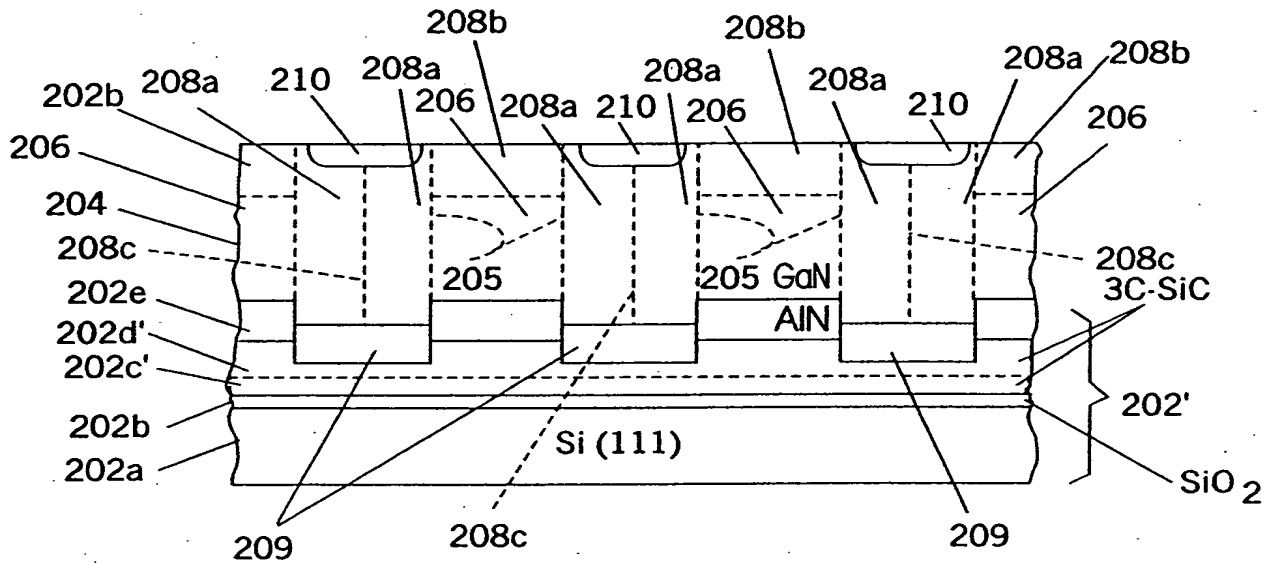


FIG. 27

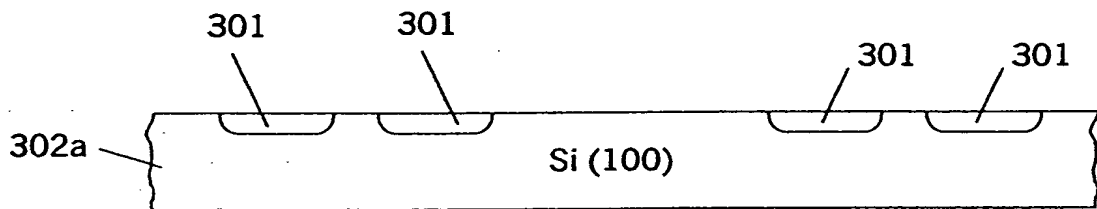


FIG. 28

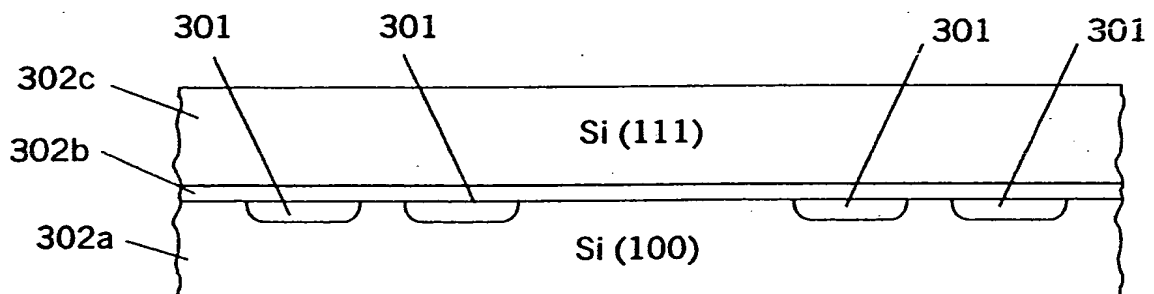


FIG. 29

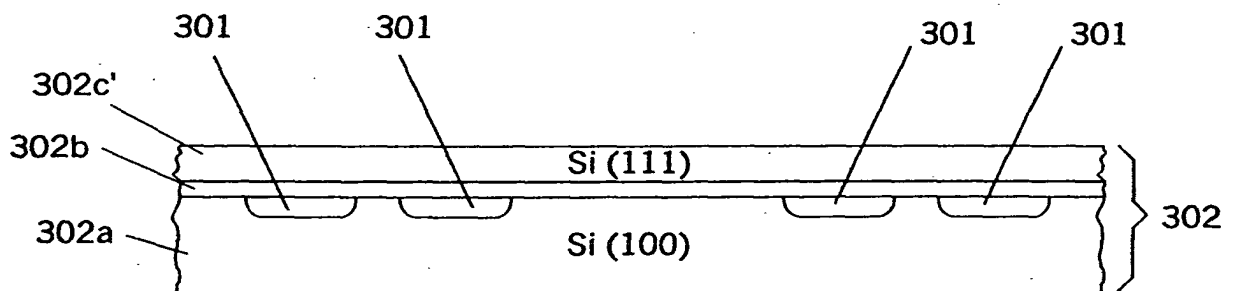


FIG. 30

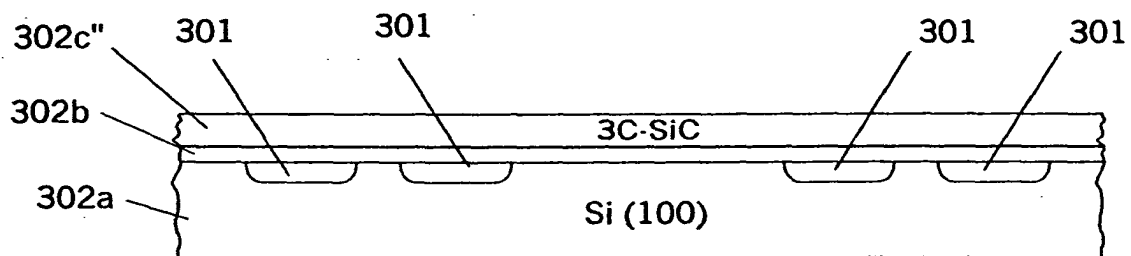


FIG. 31

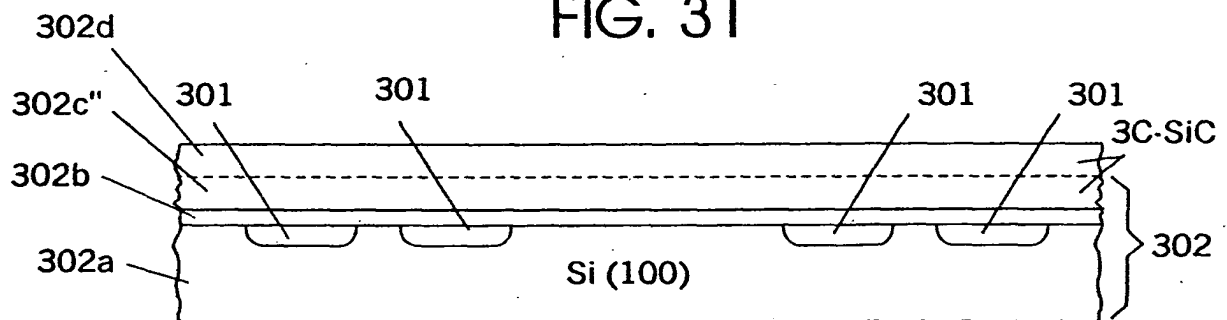


FIG. 32

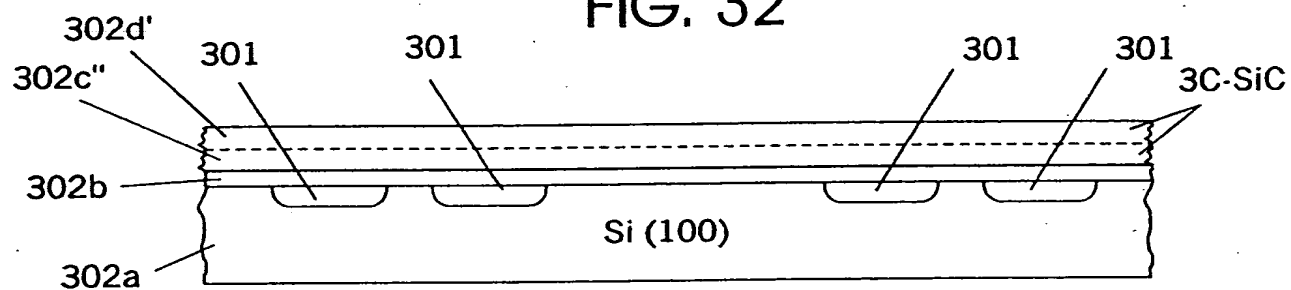


FIG. 33

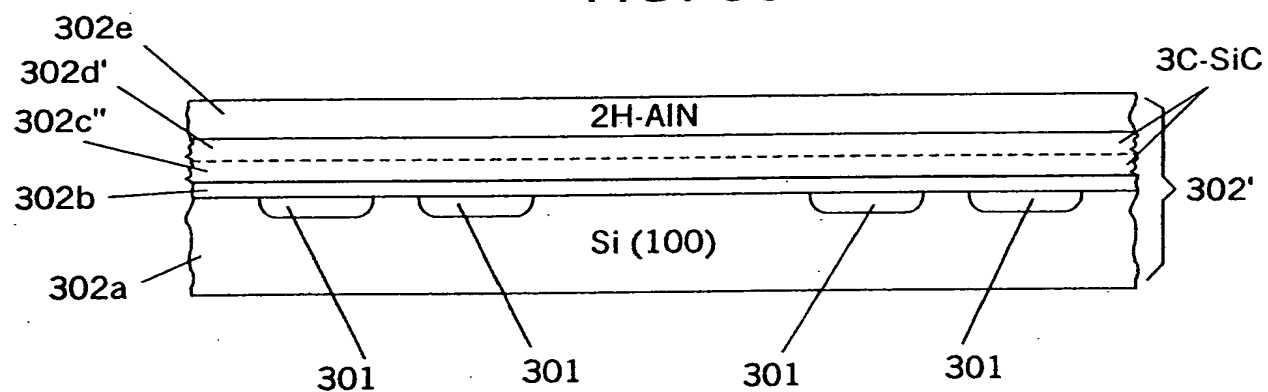


FIG. 34

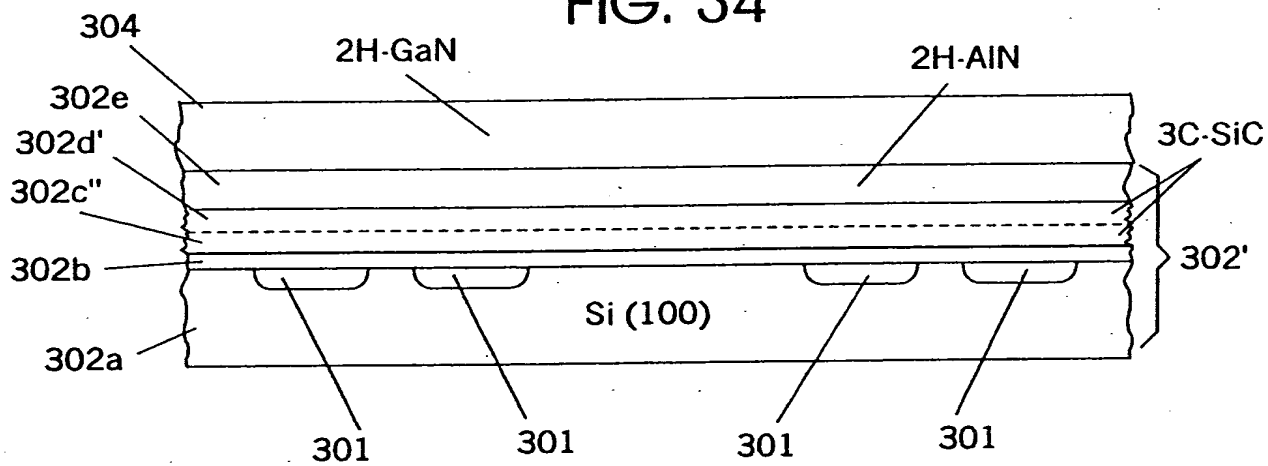


FIG. 35

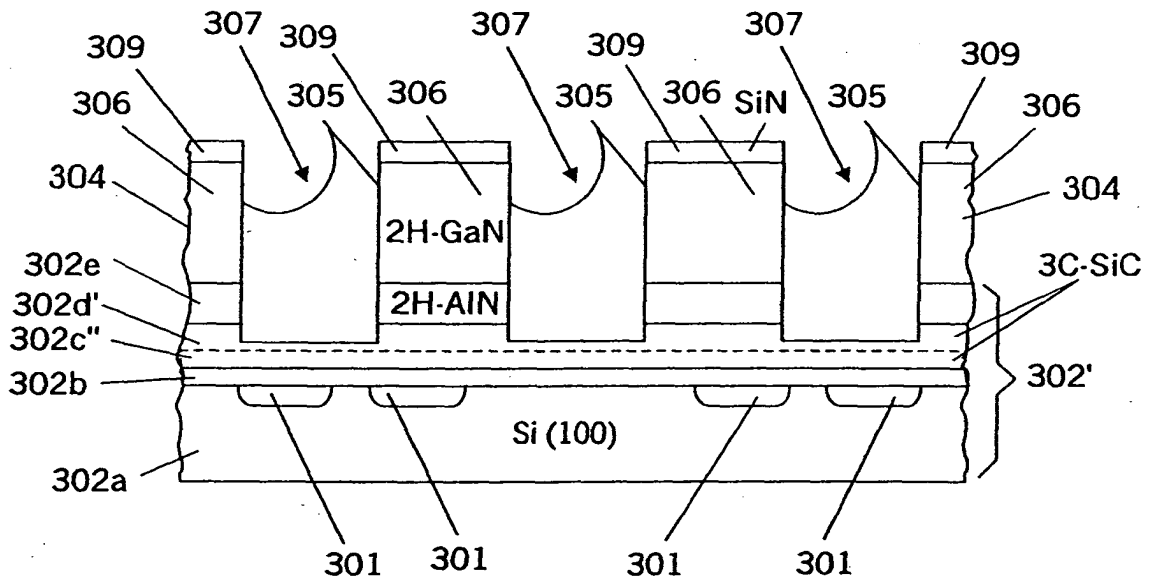


FIG. 36

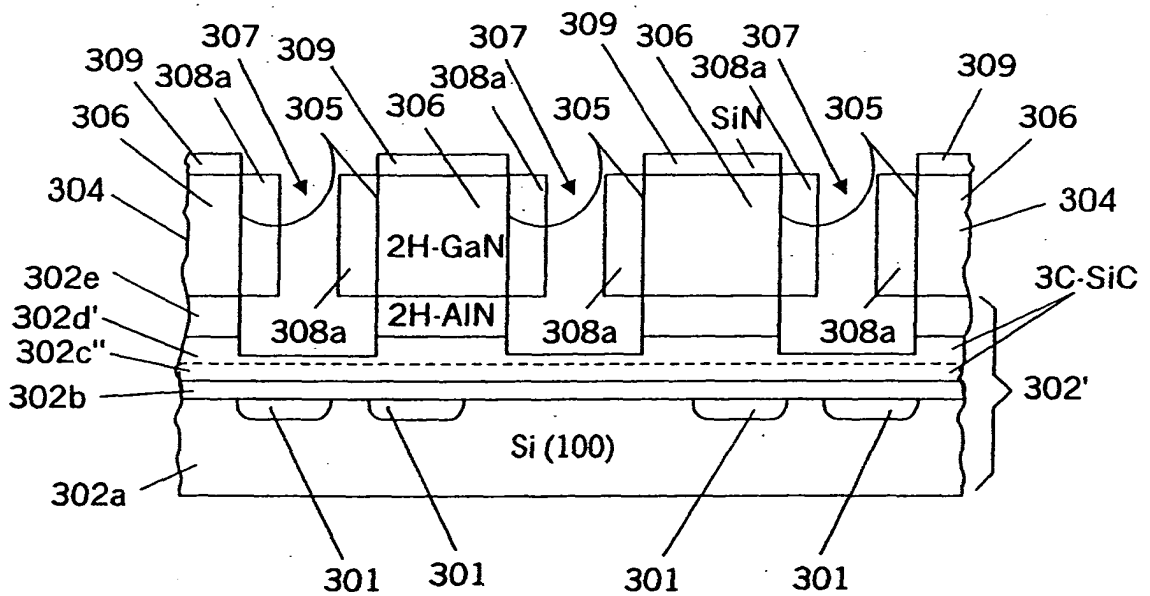


FIG. 37

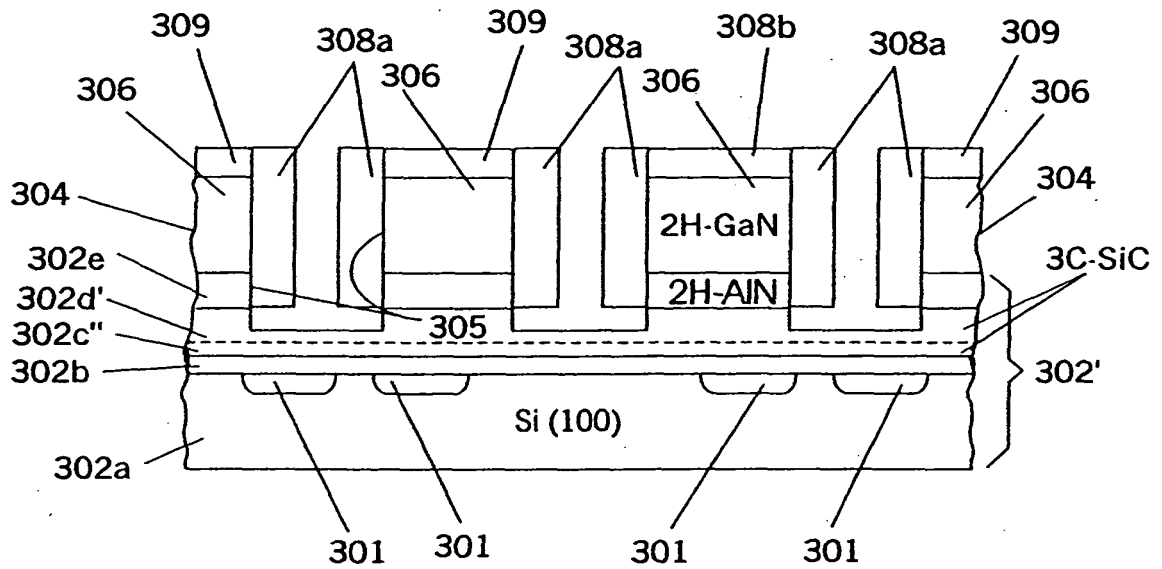


FIG. 38

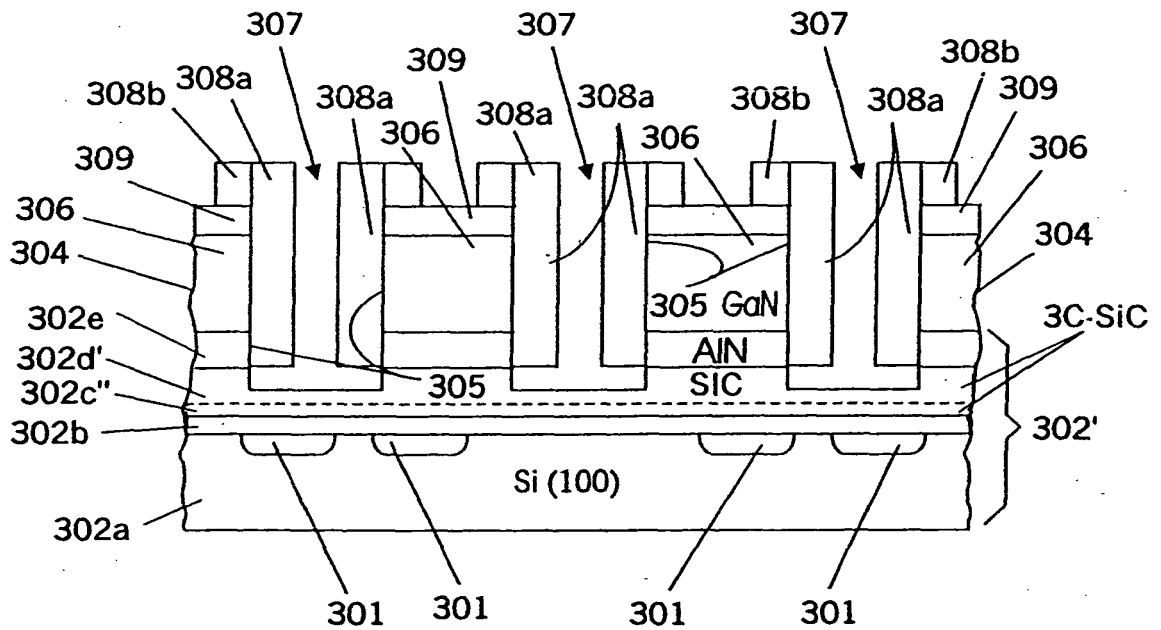


FIG. 39

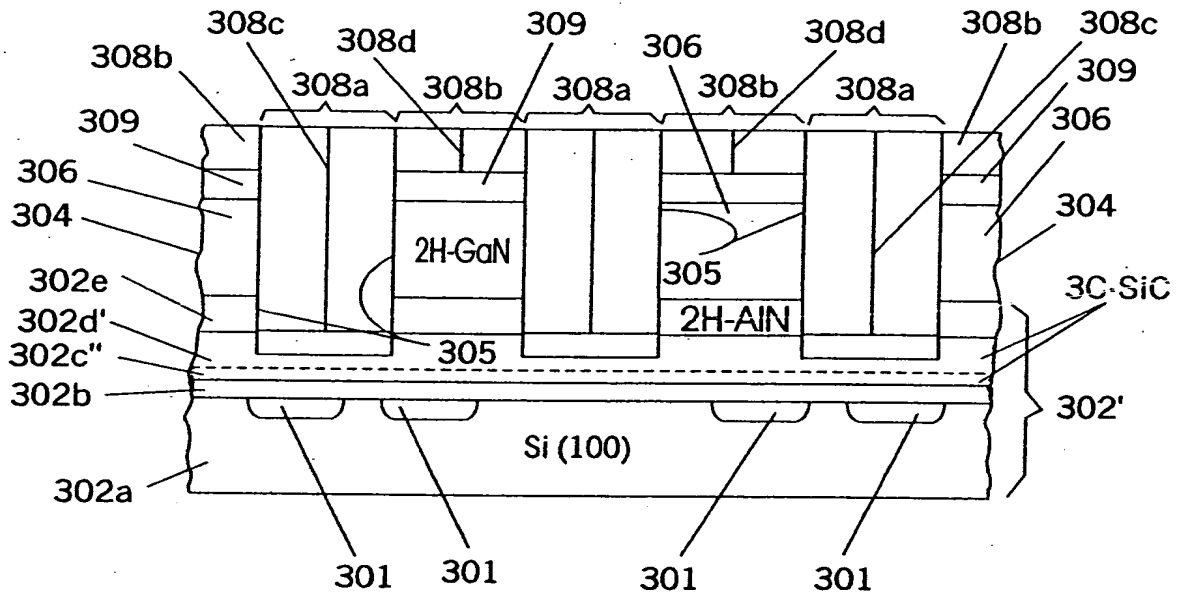


FIG. 40

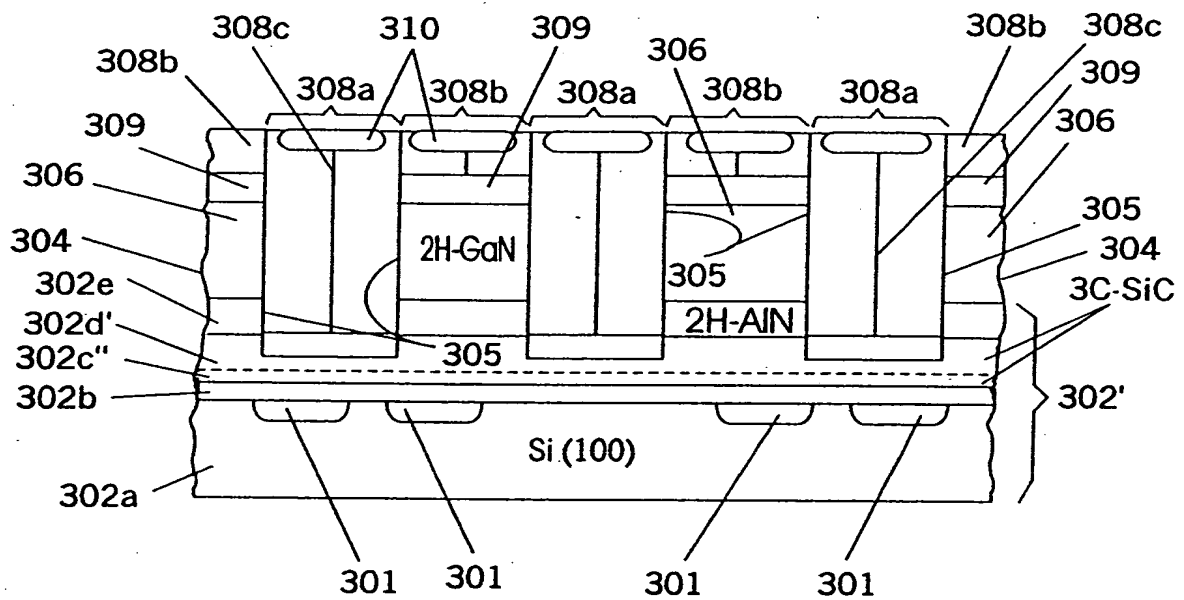


FIG. 41

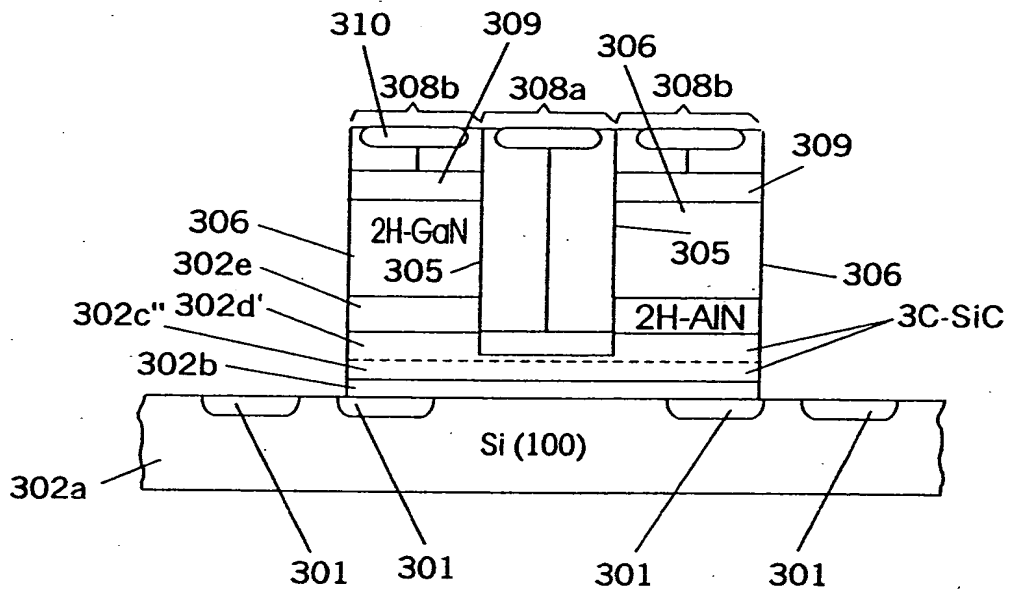


FIG. 42

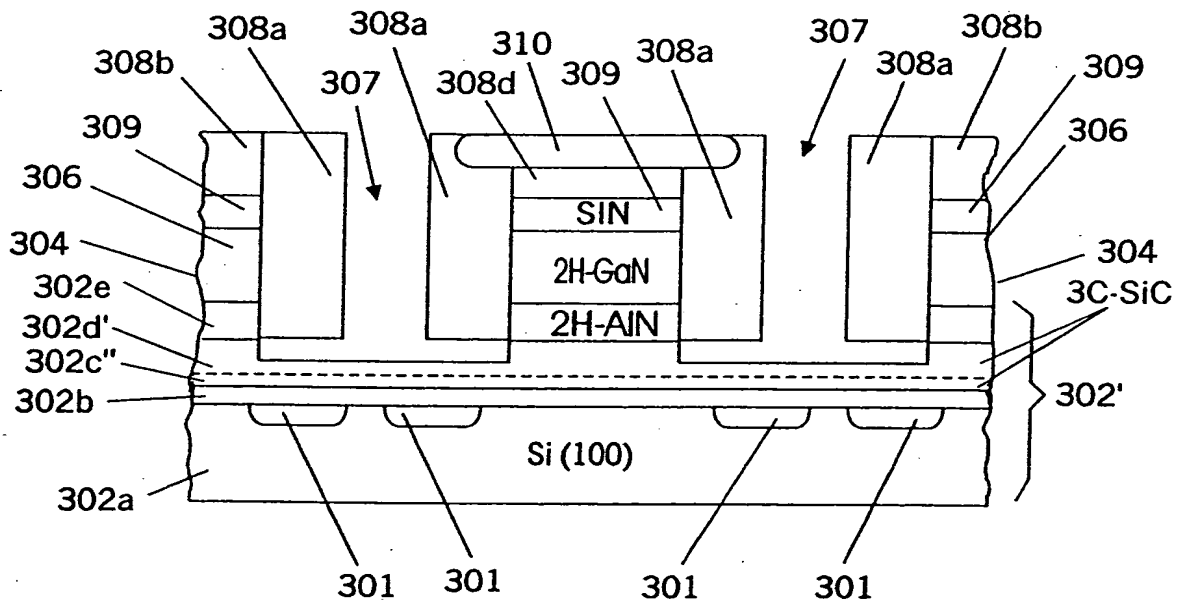


FIG. 43

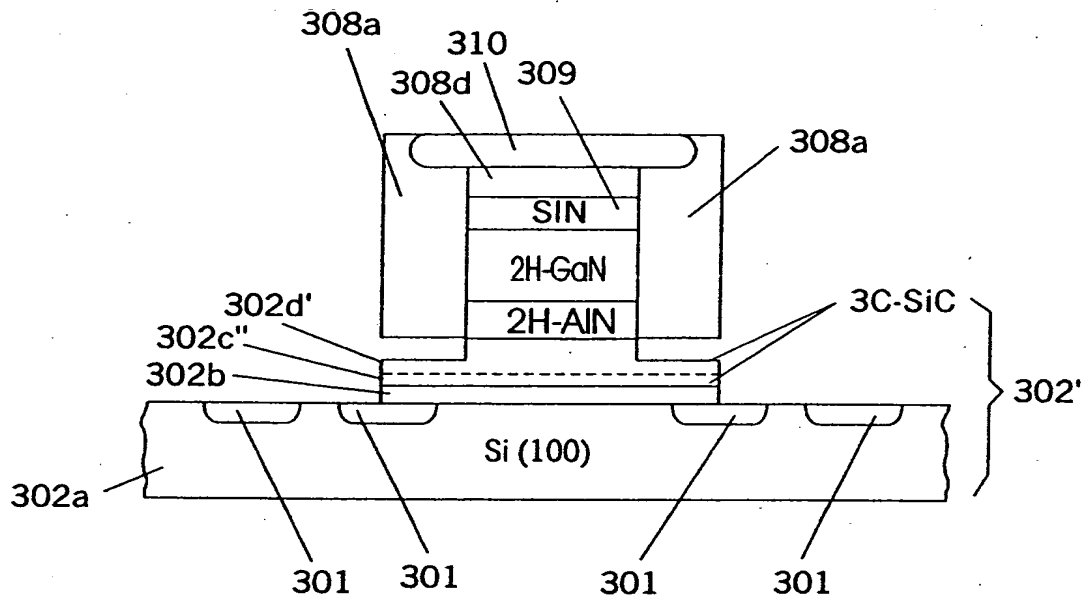


FIG. 44

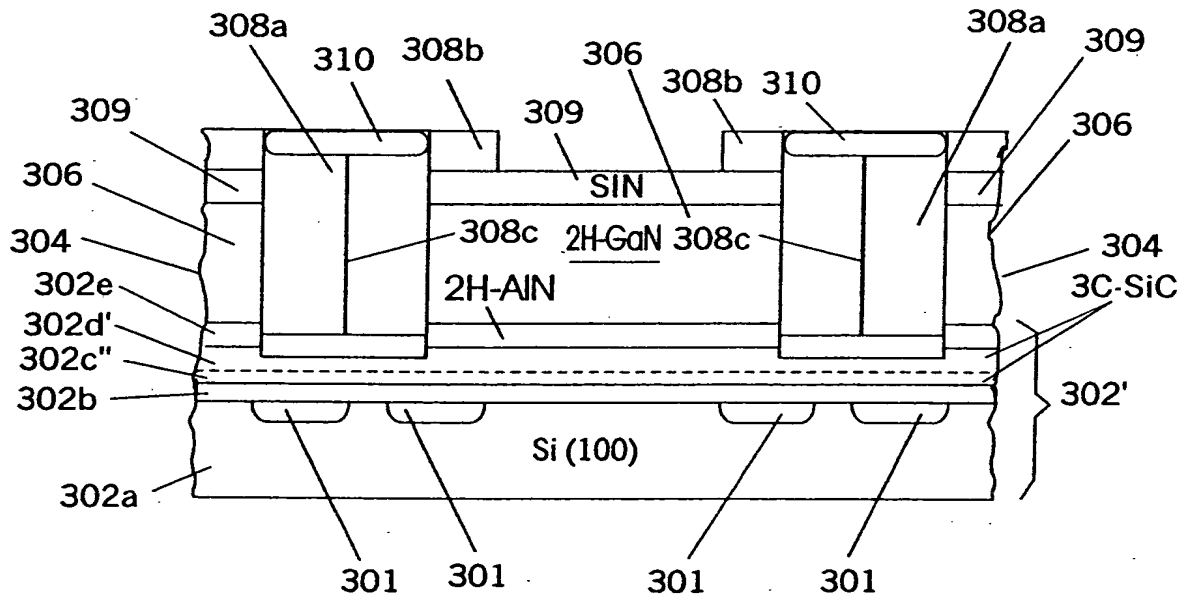


FIG. 45

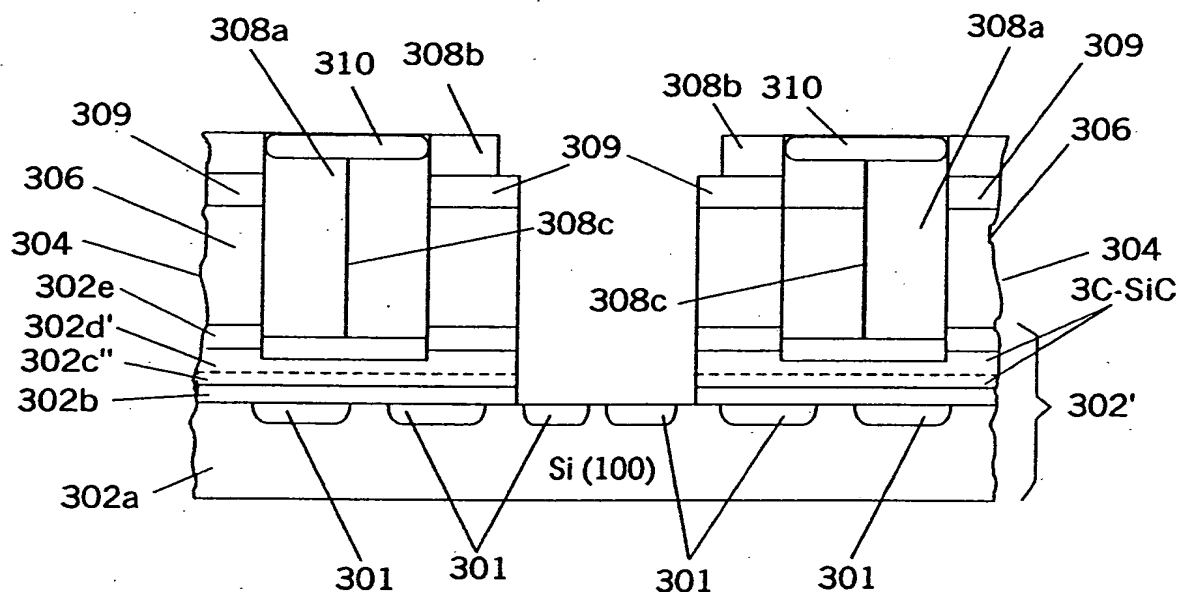


FIG. 46

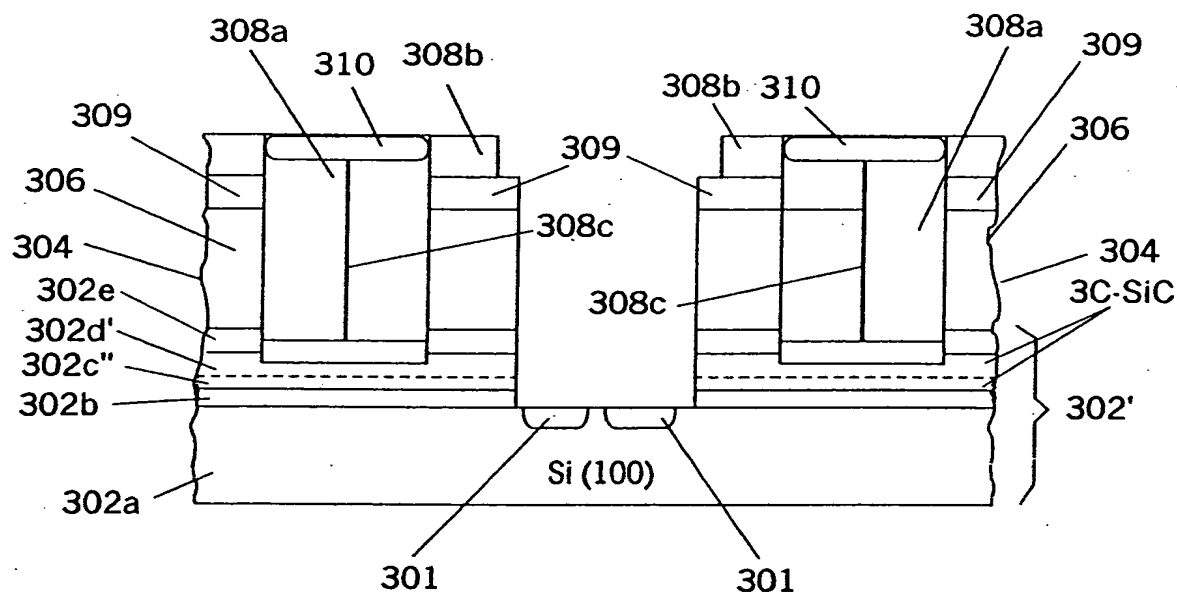


FIG. 47

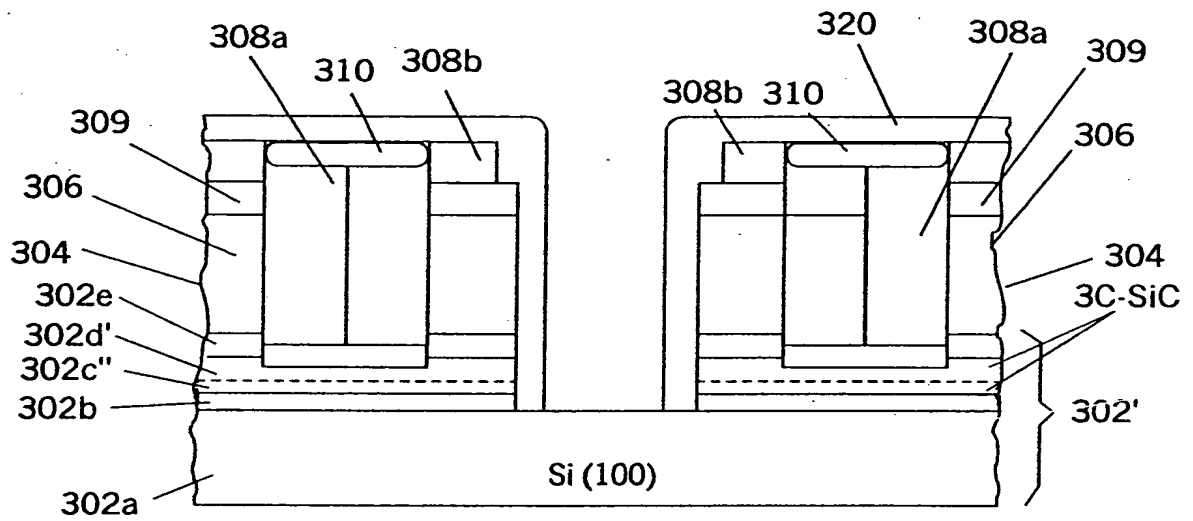


FIG. 48

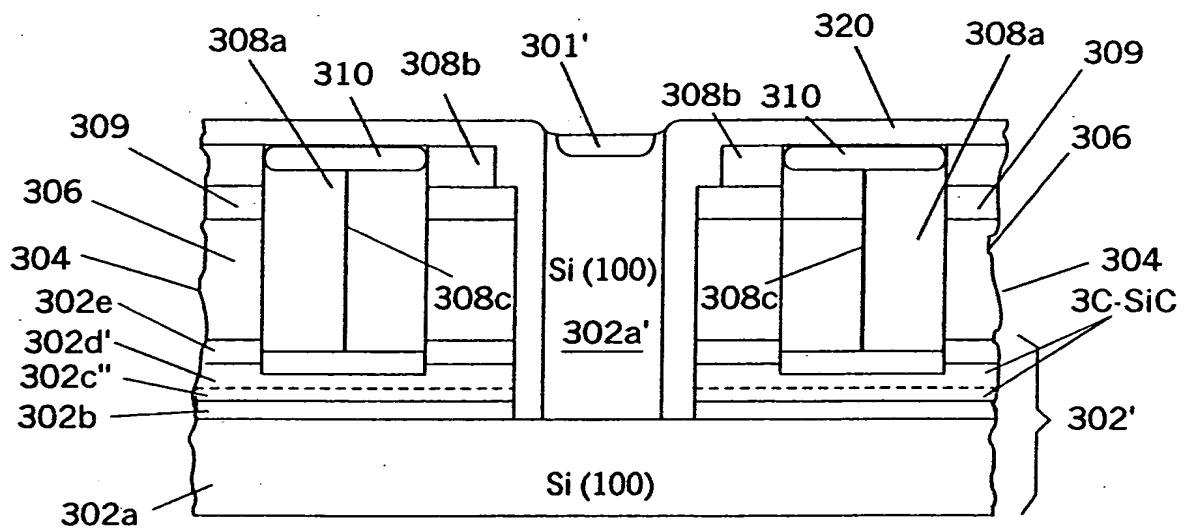


FIG. 49

